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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/621,463 | 07/18/2003 | Kyung-Mo Yu | P-0563 | 1141 |
| 34610 | 7590 | 07/19/2007 | | |
| KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200 | | | EXAMINER NGUYEN, TU X | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2618 | |
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| | | | 07/19/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/621,463

Applicant(s)

YU, KYUNG-MO

Examiner

Tu X. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-14 is/are allowed.
- 6) ☒ Claim(s) 1-5, 15-19, 26 and 28 is/are rejected.
- 7) ☒ Claim(s) 20-25 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1 and 15, have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 15-19, 26 and 28, are rejected under 35 U.S.C. 103(a) as being unpatentable over the Applicant admitted prior art in view of Harada et al. (US pub. 2003/0103577).

Regarding claims 1 and 15, the Applicant admitted prior art discloses a synchronization detecting method of a mobile communication system, comprising:

comparing a synchronization detection threshold value set for each corresponding section of a time period in which a quality of a pilot is measured (see par.3-5), and

judging a synchronization detection based on results of said comparing (see par. 3-5).

The Applicant admitted prior art fails to disclose calculate a bit error rate (see par.0252).

Harada et al. disclose calculate a bit error rate (see par.0252). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was

made to modify the system of the Applicant admitted prior art with the above teaching of Harada et al. in order to provide other technique of calculation BER other than SIR detection.

Regarding claims 2, 5 and 17-19, the modified Applicant admitted prior art discloses if a pilot bit error rate calculated in a certain section of said time period is smaller than the synchronization detection threshold value set for the section, it is judged to be in synchronization status, and if a pilot bit error rate calculated for every section of said time period is not smaller than a synchronization detection threshold value set for every section, a pilot bit error rate calculated for a first section is compared with a certain synchronization failure threshold value, and then, if the pilot bit error rate of the first section is greater than the synchronization failure threshold value, it is judged to be synchronization failure (see Harada, par.021).

Regarding claims 3 and 16, the modified Applicant admitted prior art discloses the time period for measuring the pilot quality includes a plurality of frames (see Harada, par.0261) or a plurality of slots.

Regarding claims 4 and 26, the modified Applicant admitted prior art discloses if the result of the comparison indicates the pilot bit error rate is smaller than the synchronization detection threshold value set for the section, synchronization is indicated (see Harada, par.021).

Regarding claim 28, the modified Applicant admitted prior art discloses wherein the system is a base station (see Harada, par.0021).

Allowable Subject Matter

Claims 6-14 are allowed.

Claims 20-25 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Regarding independent claim 6, the prior art fails to teach "judging the uplink is in synchronization status when the first pilot BER is smaller than the first synchronization detection threshold value; calculating a second pilot BER of the uplink for a second section when the first pilot BER is not smaller than the first synchronization detection threshold value", as cited in the claim.

Regarding claim 20, the prior fails to teach "logic configured to calculate a second pilot BER of the uplink for a second section when the first pilot BER is not smaller than the first synchronization detection threshold value; logic configured to compare the second pilot BER calculated for the second section with a second synchronization detection threshold value set for the second section", as cited in the claim.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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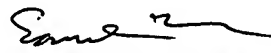
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


July 10, 2007


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